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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/824,492	04/15/2004	Petter Muren	116184	6577

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EXAMINER

DINH, TIEN QUANG

ART UNIT	PAPER NUMBER
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3644

DATE MAILED: 11/02/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/824,492

Applicant(s)

MUREN, PETTER

Examiner

Tien Dinh

Art Unit

3644

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03 August 2006.
- 2a) ☒ This action is FINAL. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-6, 8-10, 12 and 14 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3, 6, 8-10, 12, 14 is/are rejected.
- 7) ☒ Claim(s) 4 and 5 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____

- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

Tien Dinh

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 2, 3, and 9 are rejected under 35 U.S.C. 102(b) as being anticipated by Barltrop.

Barltrop discloses in figures 2, 3, 7, and 8 the features that have been claimed. Barltrop discloses rotor having a rotor shaft and rotor blades. The rotating plane is defined by the tip of each blade during rotation. The rotating plane is tilted with respect to a reference plane that is perpendicular to the rotor shaft. At least a part of the rotor blade has a certain constant pitch angle with respect to the reference angle and a part of the rotor blade has a pitch angle with respect to the rotating plane. The tip of the blade has a pitch angle that is fixed relative to the rotating plane. The inner part of the blade has fixed pitch angle with respect to the reference plane. Re claim 3, the blades of Barltrop are twistable since it is commonly well known that blades undergo twisting when they are rotated. Plus a force strong enough will twist the blades. Hence, the blades are flexible and are made of flexible materials. Baltrop also discloses parts to enable tilting of the aircraft.

Claim Rejections - 35 USC § 103

Art Unit: 3644

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 6, 8, 10, 12, 14 rejected under 35 U.S.C. 103(a) as being unpatentable over Barltrop as applied to claim 1 above, and further in view of JP S52-088998

Barltrop discloses all claimed parts except for the means to produce the vertical thrust vector that is at a horizontal distance from the rotor. However, JP S52-088998 teaches means that produce the vertical thrust vector that is at a horizontal distance from the rotor are well known.

It would have been obvious to one skilled in the art at the time the invention was made to have used means that produce the vertical thrust vector that is at a horizontal distance from the rotor in Barltrop's system as taught by JP S52-088998 to create a more maneuverable system. Re claim 14, please note that this is intended use. An aircraft can be a "toy". Thus Barltrop's aircraft can be a toy aircraft.

Re claim 6, the examiner takes official notice that the blades being made of two or more elements that have flexible parts or hinges used to form part of the blades are well known in this day and age.

Allowable Subject Matter

Art Unit: 3644

Claims 4 and 5 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Response to Arguments

The examiner would like to thank the applicant for clarifying the subject matters concerning the 35 USC 112 rejections.

The examiner would like to point out that the claims call for a rotor having at least two blades a vertical shaft, the tips of the blades defining a rotating plane, and at least a part of the one or more rotor blades has a pitch angle fixed relative to the reference plane, and at least a part of the one or more blades has a pitch angle fixed relative to the rotating plane. As the applicant should be well aware, since the tip of the blades define the rotating plane, this mean the tip of the blades are always fixed to the rotating plane. Furthermore, Baltrop discloses an inner portion of the blade is fixed relative to the rotating plane (which is essentially a horizontal plane). When the rotor of Baltrop is rotated at a very slow speed, let's say 1 revolution per hour, the pitch angle of the inner part of the blade 12.1, 12.2 are "fixed relative to the rotating plane." Please note that the claims do not call for any rate of the spinning rotor. Please note that all remaining claims except for the claim 14 calls for a "helicopter". However, claim 14 calls for an alternative when claiming "hovering toy aircraft."

Art Unit: 3644

Re claim 3, it seems that the applicant is admitting that blades do indeed twist. One of ordinary skilled in the arts of helicopter can clearly acknowledge this. Since due to the inherent nature of the blades that they twist, this meet the claimed subject matter.

In response to applicant's arguments on the JP 52-88998 reference, one skilled in the art would indeed want to put a small vertical rotor to create a more maneuverable aircraft. This is a valid motivation.

RE claim 6, it seems that the applicant has not challenged the assertion that rotor blades being made of two or more elements. The examiner believe that this is an admission that blades being made up of multiple parts are well known.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Art Unit: 3644

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tien Dinh whose telephone number is 571-272-6899. The examiner can normally be reached on 9-6.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Teri Luu can be reached on 571-272-7045. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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